



2007 Arizona Drought Preparedness Annual Report

October 25, 2007



KEEPING ARIZONA SAFE, STRONG AND PROSPEROUS



Report Organization

- Executive Summary
- Introduction
- Statewide Drought Program
- Statewide Conservation Office
- Monitoring Technical Committee
- Local Drought Impact Groups
- Conclusion





Statewide Drought Program

- Program Development & Plan Implementation Highlights
- Recommendations for Improving Monitoring, Implementation and Response
- General Plan Modifications





Program Development & Plan Implementation Highlights

- Coordination of 3 structured groups
- Drought planning for community water systems
- Education and outreach





***Monitoring
Technical
Committee***

***Local
Drought
Impact
Groups***

***Interagency
Coordinating
Group***

Coordination of 3 Structured Groups

- Involvement from local drought impact groups
- Drought Reporter page added to Drought Monitor Report



Coordination of 3 Structured Groups

*Monitoring
Technical
Committee*

*Local
Drought
Impact
Groups*

*Interagency
Coordinating
Group*

2006

- Cochise
- Pinal
- Santa Cruz
- Pima

2007

- Yavapai
- Graham/Greenlee

10 of 15 counties

In process

- Apache
- Navajo
- Mohave

Planned for 2008

- Yuma
- Gila
- Maricopa
- La Paz
- Coconino



***Monitoring
Technical
Committee***

***Local
Drought
Impact
Groups***

***Interagency
Coordinating
Group***

Coordination of 3 Structured Groups

- Participation in Monitoring Technical Committee
- Drought Reporter
- Rain Gauges
- Drought Impacts Database and Reporting System



***Monitoring
Technical
Committee***

***Local
Drought
Impact
Groups***

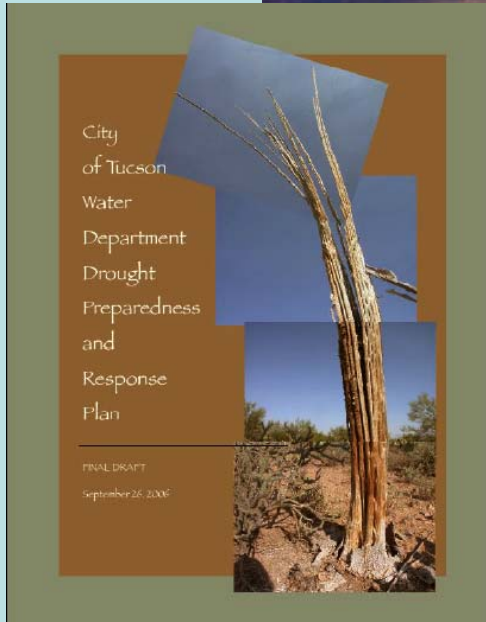
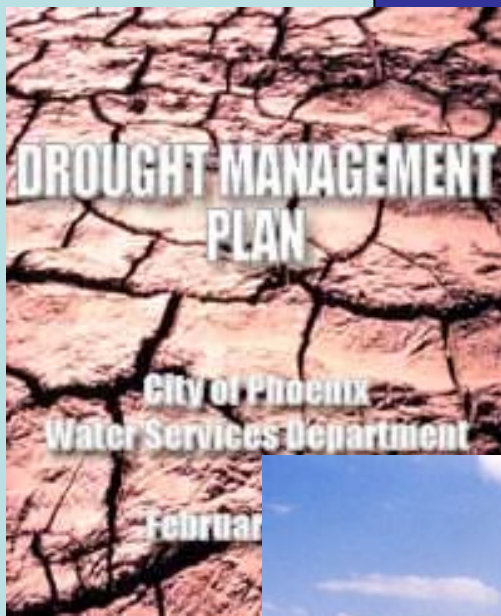
***Interagency
Coordinating
Group***

Coordination of 3 Structured Groups

- Executive Order - Drought Declaration
- Emergency Drought Declaration
- Drought Disaster Designation

Drought Planning for Community Water Systems

Outside of AMAs

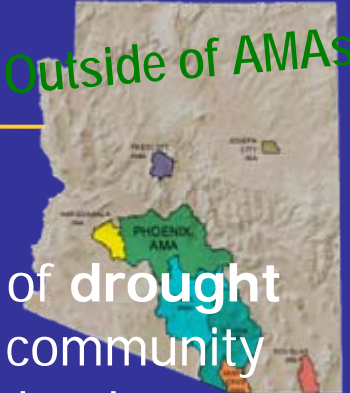


ADWR began implementation of **drought planning requirements** for community water systems, as established by the state legislature in 2005 (House Bill 2277).

These requirements were created to ensure that the state's water providers reduce their vulnerability to drought impacts and are prepared to respond when drought occurs.

A public water system that serves at least 15 service connections or 25 year-round residents.

~800 systems in Arizona





Drought Planning for Community Water Systems

Three Components

Water Supply Plan - To evaluate water supply needs and strategy to meet needs

Drought Preparedness Plan - To meet the needs of the system during drought or water shortage conditions

Water Conservation Plan - To increase the efficiency of the water system, reduce waste, and encourage consumer water conservation efforts

Small water systems ($\leq 1,850$ customers) and joint plans – Jan. 2008
Large water systems ($> 1,850$ customers) – Jan. 2007

***System
water plans***

***Annual
water use
reports***



Drought Planning for Community Water Systems

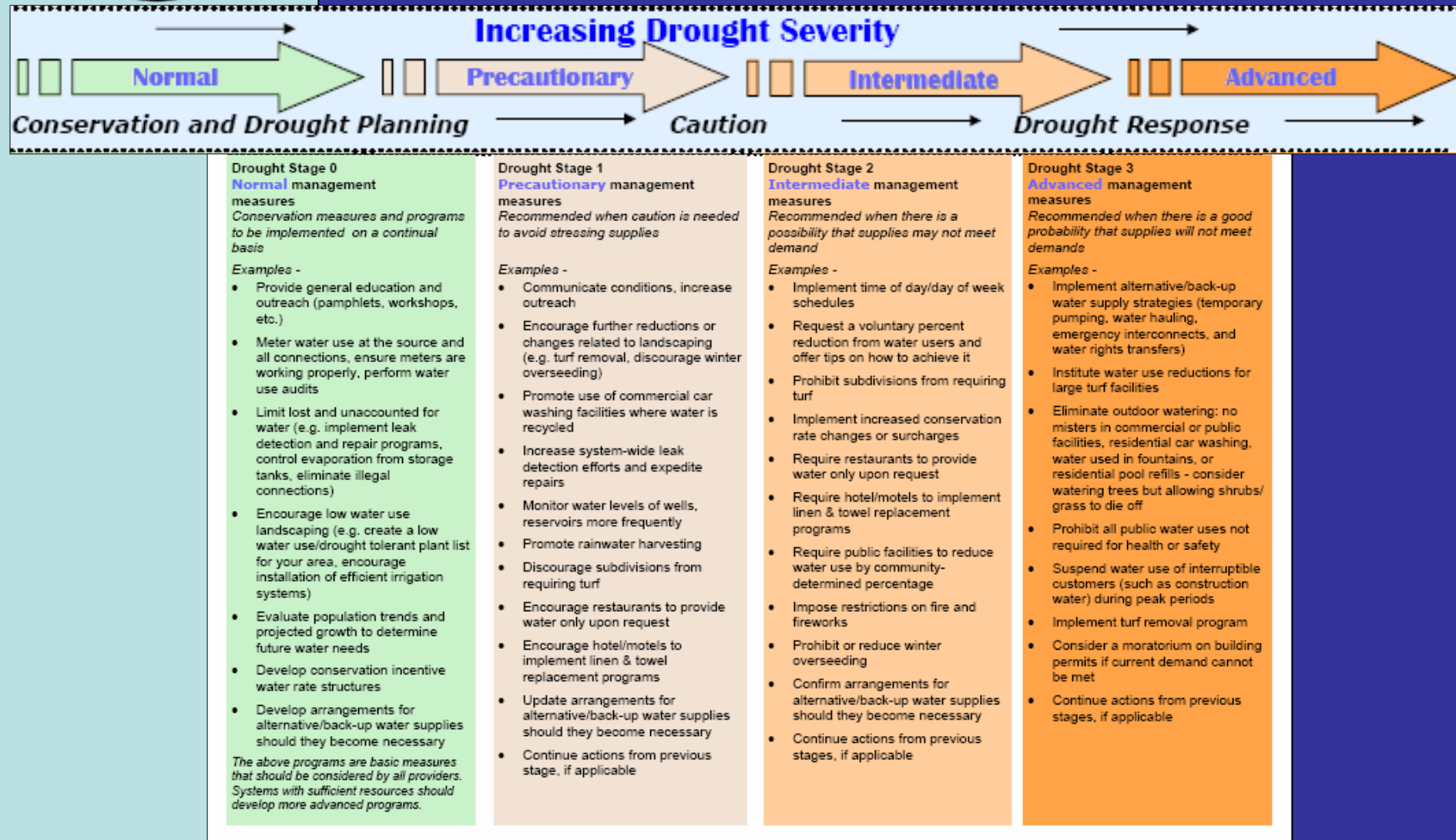
- Outcome
 - 90% submittal rate
 - 75% met primary objectives
 - 25% did not meet requirements
 - missing crucial components
 - system not prepared for drought & potential water shortage conditions
 - Notice to governing bodies
- Improvements
 - Emergency supplies
 - Guidance
 - System water plan form
 - Example stages & measures
 - Drought planning tool

***System
water plans***

***Annual
water use
reports***



Improved Guidance





Drought Planning Tool

AZ CWS Drought Planning Tool: Drought Plann...

Arizona Community Water System Drought Planning Tool

Home || Identify | Sensitivity Questionnaire | Select Response Measures | Justification & Implementation | Drought Preparedness Plan

Step 2: Drought Sensitivity Questionnaire

Please supply an answer to each of the following questions. We

- Required fields.

- Does your system use surface water?
- Does your system use groundwater?
- Do you expect any type of changes in your area that could ne
- Do you implement an active conservation program among your
- Do you have emergency backup supplies if needed?
- Do you have more than three peak days of water supply to pro
- Have you had to haul water to supply your customers in the la
- Do you have existing interconnections to another water supplie
- Have you had to rely on an interconnection to supply your cus
- Do you anticipate constraints that will prevent you from meetin

Arizona Community Water System Drought Planning Tool

Home || Identify | Sensitivity Questionnaire | Select Response Measures | Justification & Implementation | Drought Preparedness Plan

Step 3: Select Drought Response Measures

Decide what management measures will be appropriate for your system for each drought stage. From the list of management measures, check the boxes next to the measures you will use for each drought stage, or fill in your own measures by clicking "add new measure?" (consider measures for both the system and for the customers).

ADWR System ID#

CWS Name

Drought Stage see MTC Report <i>These drought stages are depicted in the monthly drought monitoring report provided by the Governor's Drought Task Force. Use the status for your watershed provided by the long term maps to guide in the implementation of your drought response measures.</i>	Management Measures				
	Stage 0 Normal	Stage 1 Abnormally Dry	Stage 2 Moderate	Stage 3 Severe	Stage 4 Extreme
• Implement conservation measures/programs from water conservation plan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
• Continue measures from previous drought stage, if applicable.	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
• Measure - Perhaps, these drought response measures should be ordered Drought Stage. The low stage measures should be listed first and the high stage measures last.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Measure - Perhaps, these drought response measures should be ordered Drought Stage. The low stage measures should be listed first and the high	—	—	—	—	—



Drought Planning for Community Water Systems

Requirements

- Water withdrawn & diverted
- Water received & delivered
- Effluent use
- Storage facilities
- Conservation measures

Outcomes

- Water use outside of AMAs
- Online reporting tool
- 70% submittal rate
- 50% filed online
- Notices to governing bodies
- Analysis

Due June 1st

*System
water plans*

*Annual
water use
reports*



eCWS Online Reporting Tool

System
water plans

Annual
water use
reports

Electronically file
– save time, save
money and
conserve water...

Community Water System - Annual Report Filling - Microsoft Internet Explorer provided by ADWR

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites

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Securing Arizona's Water Future

Arizona Department of Water Resources

Home | FAQ | Site Map | Links | Meetings & Notices Calendar | Contact Us

STEP 4 - Preview and Confirm

Part 1 - Groundwater Withdrawn

Well Registry 55#	Indicate Metered or How Estimated	Quantity Withdrawn (acre-feet)
No records to display.		
		Total Groundwater Withdrawn (ac-ft): 0

Part 2 - Surface Water Diverted (Including well diversions)

Source of Water Diverted	Water Right or Claim #	Well Registry 55#	Indicate Metered or How Estimated	Quantity Withdrawn (acre-feet)
No records to display.				
				Total Groundwater Withdrawn (ac-ft): 0

Part 3 - Water Received from Others

Name of Water Supplier	Source of Water Received	Well Registry 55#	Quantity Received (acre-feet)
No records to display.			
			Total Groundwater Received (ac-ft): 0

Part 4 - Water Delivered to Other Water Systems

Source of Water	Public Water System ID	Source of Water	Well Registry	Indicate Metered	Quantity Withdrawn
-----------------	------------------------	-----------------	---------------	------------------	--------------------

Done

Internet Explorer

Report - Part 5
Report - Part 6
Report - Part 7
Report - Part 8
STEP 4

User Type: External

Arizona Department of Water Resources
3550 N. Central Avenue
Phoenix, Arizona 85012

Effective November 28th, 2005, [our location](#) & [Driving Directions](#) to ADWR
ADWR privacy and web site [Disclaimer](#).

Phone: (602) 771-8500
Long Distance within Arizona: (800) 352-8488
Fax: (602) 771-8684

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Done

Internet

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Securing Arizona's Water Future

Water Withdrawn

Selected Rows	Quantity Withdrawn (acre-feet)
Entered	
Estimated	
Total Groundwater Withdrawn (ac-ft): 0	

Back Next

Done

Internet



Education and Outreach

- Presentations
- Web site
- Local drought impact groups
- Conservation group





Recommendations for Improving Monitoring, Implementation and Response

Monitoring

- supports recommendations of the Monitoring Technical Committee





Recommendations for Improving Monitoring, Implementation and Response

Implementation and Response

- LDIG support
 - Workbook or toolkit
 - Guidance for each workgroup
 - Mitigation and response planning
 - Info. needed, coordination, action, authority
 - How to identify monitors or drought impact reporters
 - Resources
 - Resources
 - Communication

***Dire drought
and water
shortage =
responsibility
and a more
urgent need
for help***



Recommendations for Improving Monitoring, Implementation and Response

Implementation and Response

- Community water system support
 - Planning
 - Implementation
 - Authority
 - Preparedness
 - Technical resources

A plan is just a plan. It's the first step.





General Plan Modifications

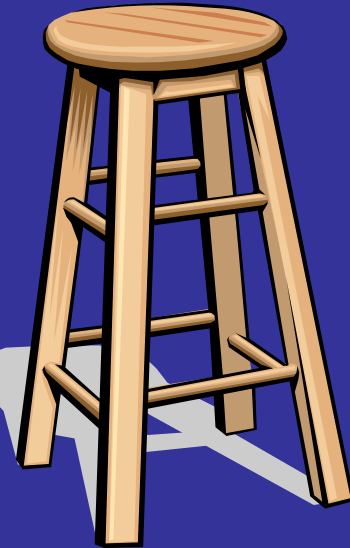
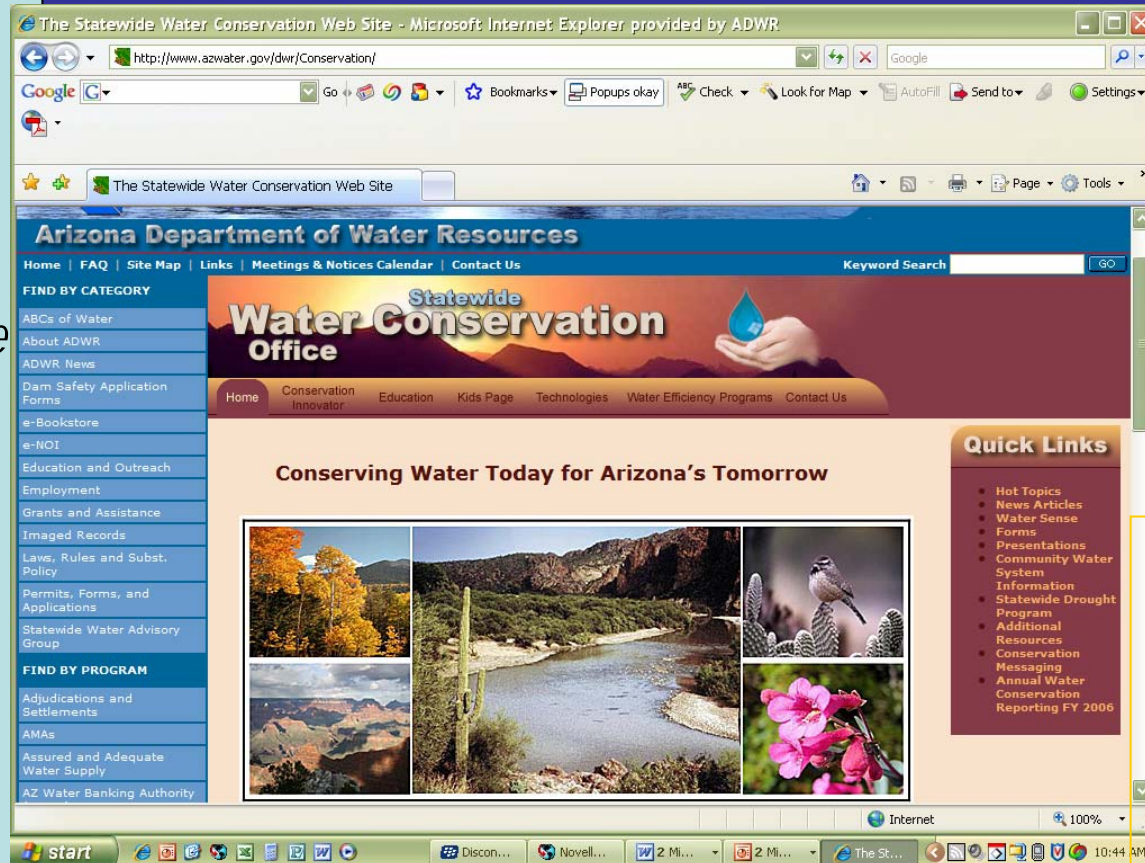
- 2006 recommendations
- Changes
 - Plan allows flexibility
 - Operating based on recommendations





Statewide Conservation Office

By creating a culture of conservation, we can greatly reduce the impacts of drought on our natural resources, economy, and quality of life.



Planning
Funding & Assistance
Education & Outreach
Technology Transfer



Monitoring Technical Committee

- Tony Haffer, MTC Co-chair



Local Drought Impact Groups

Focus on workgroups

- **Monitoring**
 - strategy for recruiting monitors
 - Drought Impacts Reporting System
 - Rainlog
 - listserv
- **Education & Outreach**
 - Newspapers – drought status maps & conservation tip
 - Calendar for monitors

Needs

- Training & equip. for monitors
- Outreach

Cochise

***Graham/
Greenlee***

Mohave

Pima

Pinal

Yavapai



Local Drought Impact Groups

- Combined counties
- 2 LDIG meetings to date
- Organizational structure
- Process for appointing steering committee (April 2007)
- Workgroups
 - Education/outreach - Funding
 - Monitoring - Mitigation/response

Cochise

*Graham/
Greenlee*

Mohave

Pima

Pinal

Yavapai



Local Drought Impact Groups

Cochise

*Graham/
Greenlee*

Mohave

Pima

Pinal

Yavapai

- Attended Yavapai County meeting
- Planning meeting in July
- Recommendation to County Manager in October
 - BOS agenda item
 - establishing an LDIG
 - 8 member steering committee
 - 3 workgroups
 - coordinators
 - role as an advisory group



Local Drought Impact Groups

- BOS approved Pima County Drought Management Plan (July 06)
 - Drought Task Force
 - Monitoring Committee (LDIG)
- 6 LDIG meetings
- Revisions to Drought Response Plan & Ordinance
- Reviewed drought indicator data for applicability
 - Drought Monitor Report
- Drought Level 1 – Response (April 07)
- Compared major metro water providers' plans
- Drought Impacts Reporting System
- Monitoring Technical Committee meetings

Cochise

*Graham/
Greenlee*

Mohave

Pima

Pinal

Yavapai



Local Drought Impact Groups

Education & Outreach -

- Joint press conference – Stage 1 declaration
- Web page - www.pima.gov/drought
- Water & sewer bill inserts
- Local TV interviews
- Articles
- Water providers use a consistent message
- Rain gauges

Needs - information sharing & coordination

Cochise

*Graham/
Greenlee*

Mohave

Pima

Pinal

Yavapai



Local Drought Impact Groups

Cochise

*Graham/
Greenlee*

Mohave

Pima

Pinal

Yavapai

- 6 meetings
- Organizational structure
- Monitoring
 - Participation within the 3 AMAs
- Mitigation & Response
 - Identify triggers & response mechanisms
- Education & Outreach
 - Looking to improve
- Needs
 - Open Houses



Local Drought Impact Groups

Cochise

*Graham/
Greenlee*

Mohave

Pima

Pinal

Yavapai

- Organizational structure
 - Steering Committee
 - Yavapai County WAC
- 2 meetings to date
- Monitoring (38)
 - 1 year - 38 members
 - Rainlog – focal point
- Mitigation (19)
 - Draft Mitigation & Preparedness Guidelines
- Education & Outreach (19)



Conclusion

- Expand program
- Ideas to ICG
- State leadership





Comments, Suggestions, Additions



Thank you

**Susan Craig, Manager
Community Water Planning
Arizona Department of Water
Resources**

(602) 771-8533

smcraig@azwater.gov



USDA NRCS

***“This place of
exceptional
beauty is not ours
to own, it is only
ours to care for,
for the time that
we are here.”***

**Governor Janet
Napolitano**